TENVIS Technology Co., Ltd

# User Manual

For H.264 Cameras

Version 1.0.0

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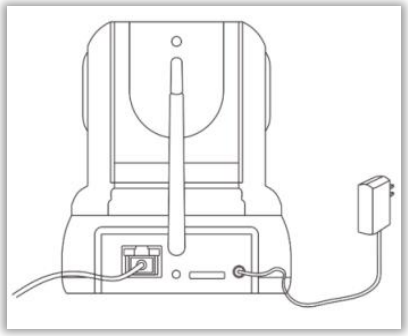
Notice:
Certain functions mentioned in this manual may vary according to camera's model. For example, pan and tilt function are for Pan/Tilt enabled cameras only.
When motion detection and/or sound detection are enabled especially during the night, false alarm might occur because of sudden change in light. Thus it is not considered as a product defect, and TENVIS is not responsible for the resulting loss.

# Basic Operation

This section will focus on basic operation of the interface including pan/tilt, video, audio, etc. For more information about mobile phone operation, please refer to Quick Start Guide.

## Hardware Installation

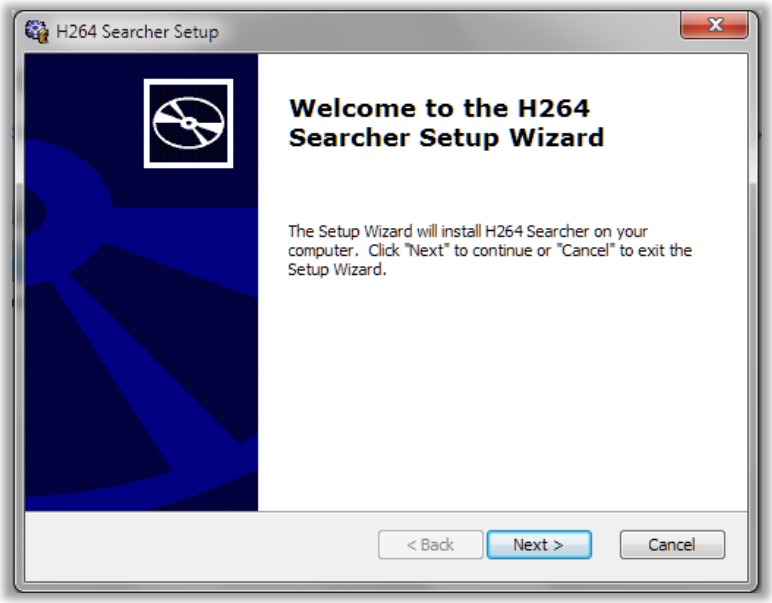
Open the package. Mount the antenna (for cameras with detachable antenna). Connect the camera to your router by a network cable and plug it in with the provided AC adapter.

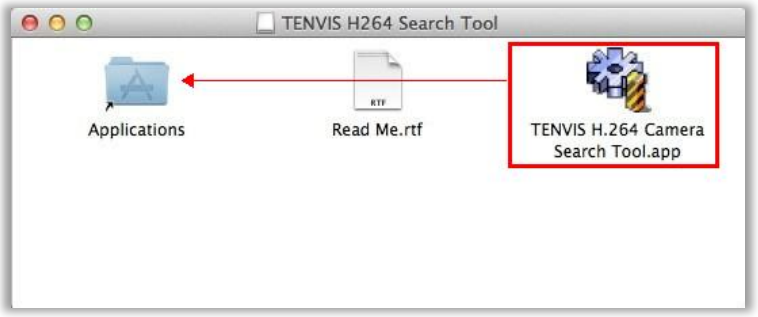


For basic viewing operation, please refer to Page 8 of Quick Start Guide and follow the guide step by step.
If you need to view your camera feed from the browser and for more information on the advanced features of the camera, please continue to browse this manual.

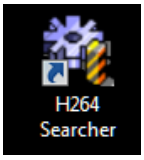
## Search Camera

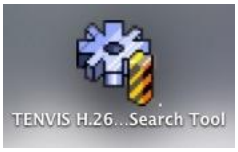
Run **H264 Searcher.exe** for Windows or Run **H264 Search Tool.dmg** for Mac to Install H264 Search Tool in your PC.


H264 Searcher Setup
Welcome to the H264 Searcher Setup Wizard
The Setup Wizard will install H264 Searcher on your computer. Click "Next" to continue or "Cancel" to exit the Setup Wizard.
< Back
Next >
Cancel

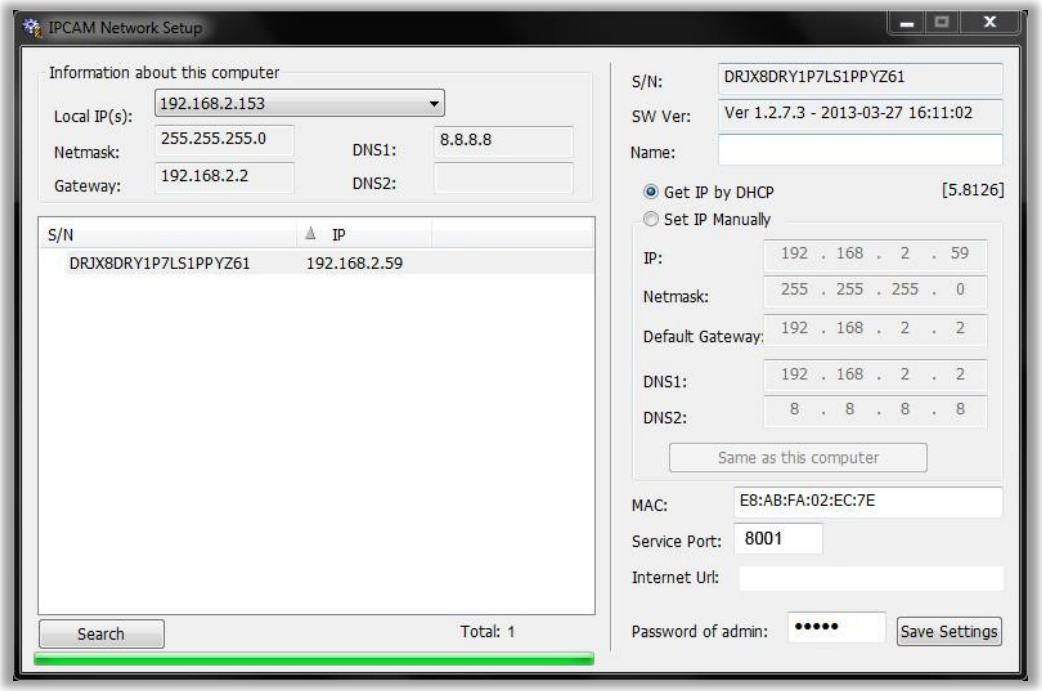


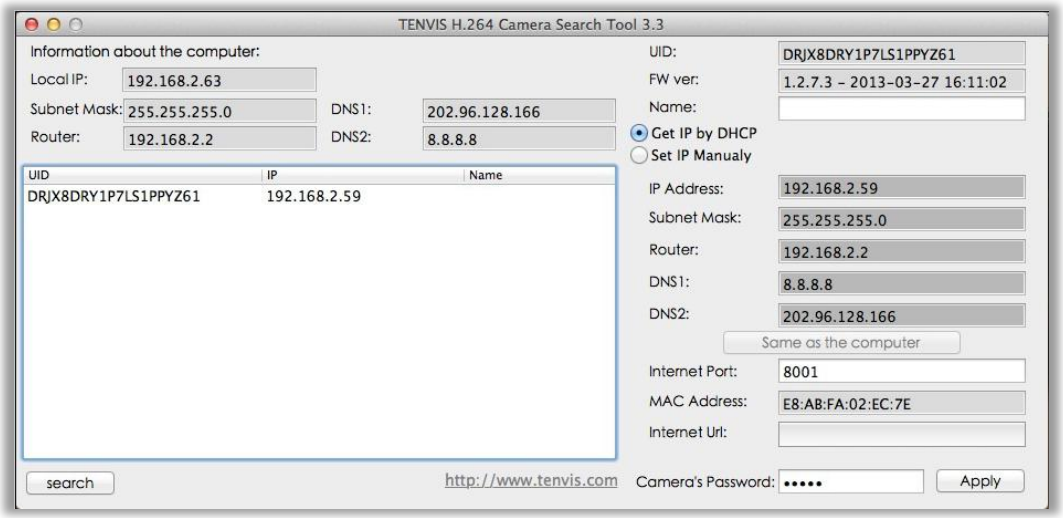

Drag TENVIS H.264 Camera Search Tool into Applications to install the search tool in MAC.

After installation, run 

on desktop for Windows or 

in launchpad for Mac.



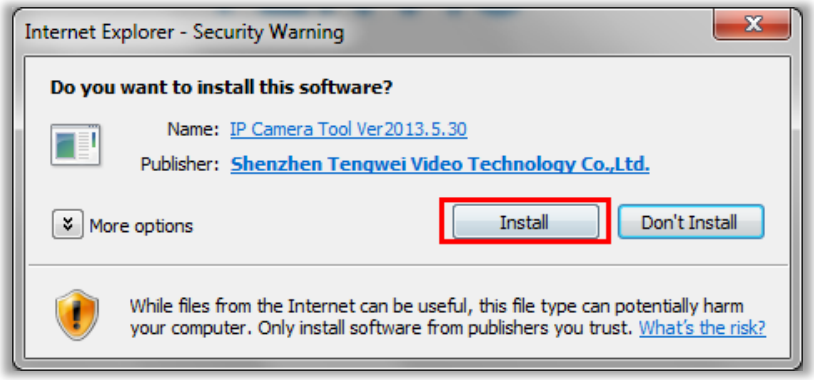



| | |
|---|---|
| Local IP | Your computer's IP address |
| Subnet Mask | Your computer's subnet Mask |
| Gateway / Router | Your computer's Gateway/Router's IP address |
| S/N / UID | Camera's serial number or P2P |
| Name | Camera's display name which is set to distinguish it from other devices on your network |
| IP Address | Camera's local network IP address, which is used to view the camera on the same local network. Specify a unique IP address for your network camera. |
| Netmask / Subnet Mask | Specify the mask for the subnet the network camera is located on |
| Default Gateway / Router | Specify the IP address of the default gateway (router) used for connecting devices attached to different networks and network segments |
| Service Port / Internet Port | Camera's communications port which is set to send video and audio data, the default port is 8001 |
| MAC / MAC address | Camera's Ethernet address |
| Internet URL | Camera's remote view URL. You can click Open to view the camera from Internet after you finish the Internet View configuration. |
| DNS1 / DNS2 | DNS automatically converts the names we type in our Web browser address bar to the IP addresses of Web servers hosting those sites. You can ask your ISP or copy your PC's configuration. |

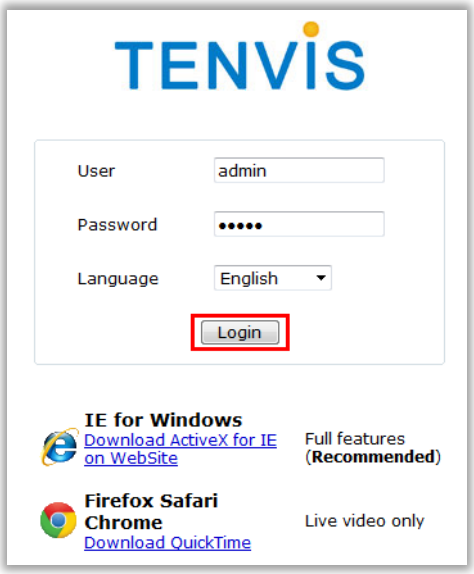
Double click the IP shown in the search tool, the search tool will open your default web browser and redirect to the camera's URL.
Usability of camera's functions depends on web browsers. Currently only Internet Explorer supports full functionalities. Cameras in non-IE web browser do not support 2-way audio, record to PC, zoom and management of video recordings. Thus we recommend viewing the camera in Internet Explorer.

## For Internet Explorer

1. After inputting the camera's LAN or Internet access URL in IE browser, the login window shows. The camera will ask you to install the web browser plug-in. Click "allow" or download it from the link shown on screen.


Internet Explorer - Security Warning
Do you want to install this software?
Name: IP Camera Tool Ver2013.5.30
Publisher: Shenzhen Tengwei Video Technology Co.,Ltd.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

2. Then login the camera, the camera's username and password will be required. The default username and password are admin.




3. Login to camera again to watch the live video.

Instructions of the buttons of main panel

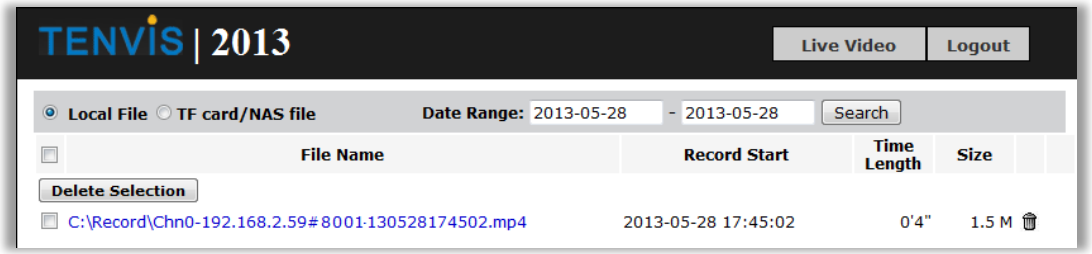
| | |
|---|---|
| | Click this button for camera settings |
| | View screenshots stored on your computer. |
| | View video clips stored on your computer and SD card |
| | Logout of camera |
| | Zoom in (Only works in IE) |
| | Zoom out (Only works in IE) |
| | Receive audio from the camera<br>(only available for camera with 2-way audio/ only available using IE) |

| | |
|---|---|
| | Send audio to the camera<br>(only available for the camera with 2-way audio/ only available using IE) |
| | There are 4 direction keys and the center button is rotation.<br>(only available for camera with Pan/Tilt) |
| Preset | Preset positions are IP camera's memorized P/T positions. Once you set a preset position, you do not need to pan the camera to your preferred position. You simply press the preset button that corresponds to the preset you want to see and the camera will move to that position automatically. |
| | Set preset position; this camera supports 16 preset positions with 4 groups. Group A, B C and D.<br>(only available for the camera with Pan/Tilt) |
| | Go a specific preset position you have set<br>(only available for the camera with Pan/Tilt) |
| | Delete a preset position<br>(only available for the camera with Pan/Tilt) |
| Cruise | Cruise for each group of preset position. For example once start cruise group A of preset position, the camera will go preset A1 to A2 to A3 to A4 then go back to A1 automatically and repeat it. |
| | Start cruise (only available for camera with Pan/Tilt) |
| | Stop cruise (only available for camera with Pan/Tilt) |
| Resolution | Changed the resolution of the video, there are 9 options:<br>Auto, 1280*720, 1152*648, 1024*576, 960*540, 832*468, 768*432, 640*480 and 320*240. |
| | Invert the video horizontally and vertically |
| | Adjust the brightness of the video |
| | Adjust the contrast of the video |
| | Take snapshot with the camera (only available using IE) |
| | Record video to PC, you can change the path in the settings menu<br>(only available using IE) |

## Playback Record Files

Click to view record files. This function is working in IE only.

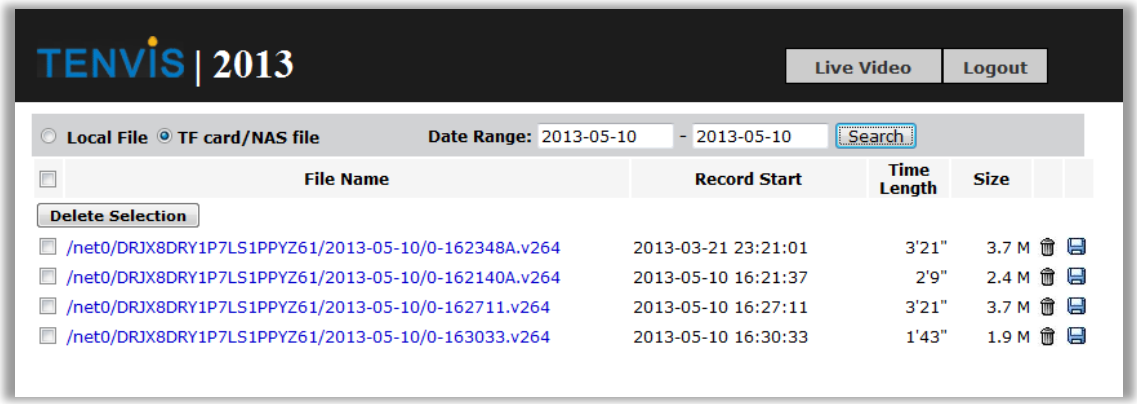
**Local File** means the file in your PC.




The composition of the file name of Local file:

| | |
|---|---|
| Location | Record file's location of your PC |
| Stream | The stream of the record file. |
| Camera IP | Camera's IP address |
| Date and time | The date and time of the record file. Such as "130528174502" means 2013-05-28 17:45:02 |

**TF card/ NAS file** means the file in TF card or NAS. When TF card is inserted and NAS is enabled, all record file in TF card will be transfer to NAS automatically. NAS with FTP protocol does not support playback function, so no file will be searched, so login your FTP server directly to get the record file.



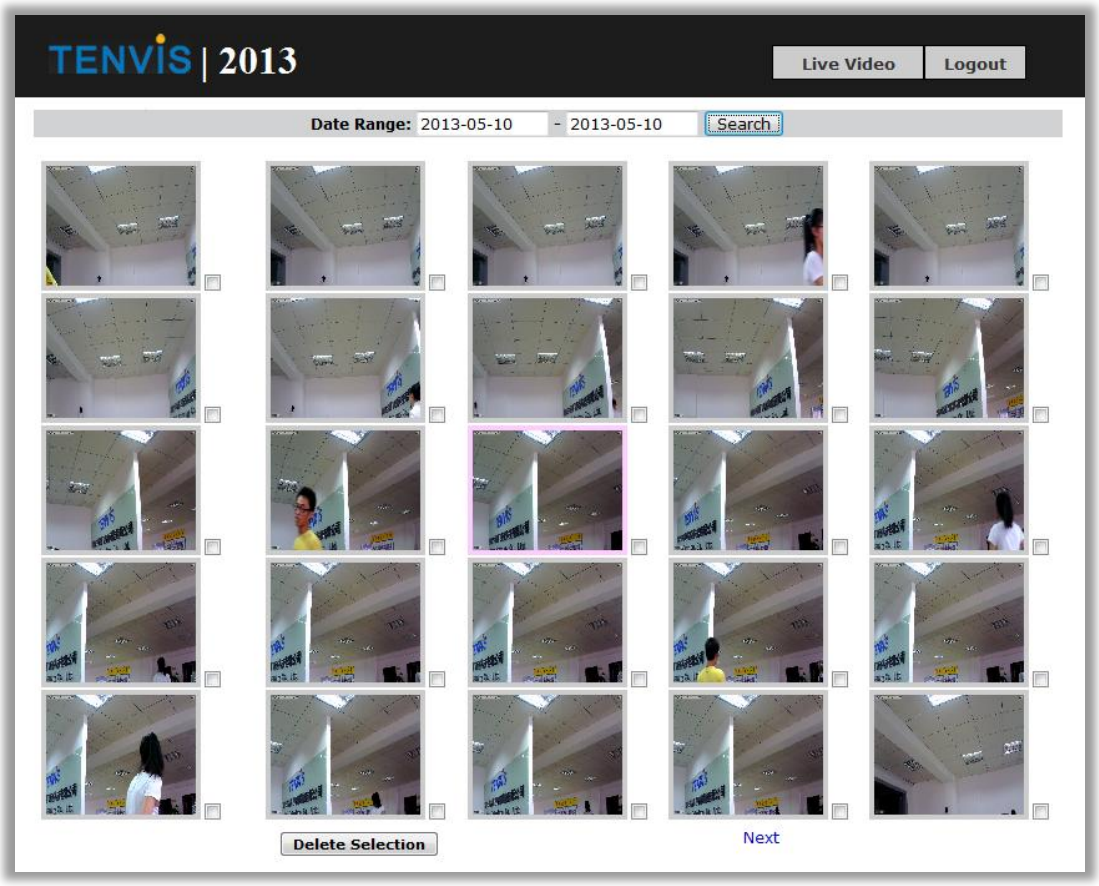

The composition of the file name of TF card or NAS file:

| | |
|---|---|
| 1. Type and location | Such as "/net0/" |
| 2. SN | The camera's SN |
| 3. Date | The data of record file |
| 4. Time | The time of the record file, such as 163033 means 16:30:33 |
| 5. Action | If the filename contains "**M**" at the end, it means that recording is triggered by motion detection (Motion).<br>If the filename contains "**A**" at the end, it means that recording is triggered by sound detection. |

And you can click delete button and save button to delete it or download it to local PC.

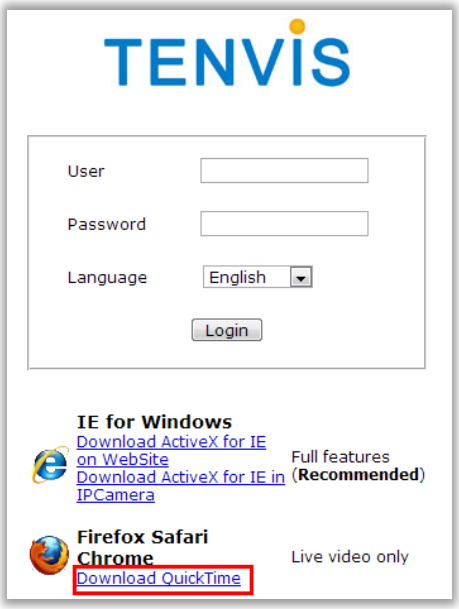
### View Pictures

Click to view the snapshots saved in your local PC. You can view and delete them here. This function is working in IE only.




## For Non-IE Web Browsers (Safari, Chrome, Firefox, etc)

1. Download QuickTime from Apple and install it.

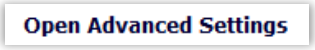



2. Accept run QuickTime plug-in in the web browser.

Here are the details of the difference of the functions.

| | IE | Non-IE web browser |
|---|---|---|
| 2-way audio | √ | × |
| Record to PC | √ | × |
| Zoom | √ | × |
| Playback | √ | × |
| View Pictures | √ | × |
| Cruise | √ | × |
| Resolution | 1280*720, 1152*648, 1024*576, 960*540, 832*468, 768*432, 640*480 and 320*240 | 1280*720, 1152*648, 1024*576, 960*540, 832*468 and 768*432 |

# Camera Settings

Click this Settings Button for camera Settings. There are 2 kinds of settings, normal settings and advanced settings. Click 

and get the advanced settings.

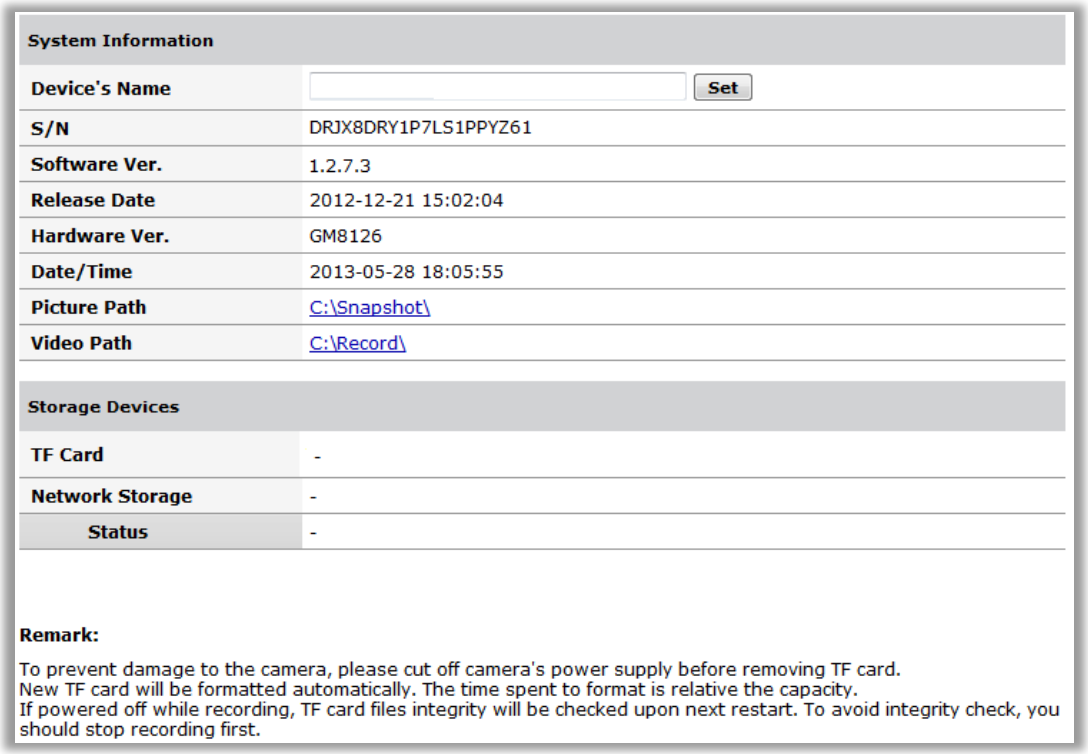
**Notice:**

1. Certain functions mentioned in this manual may vary according to camera's model. For example, pan and tilt function are for Pan/Tilt enabled cameras only.
2. Advanced settings require certain amount of background knowledge of computer science, we do not recommend you to change the settings if you are not sure the settings' functions

## System

### System Status

System Information & Storage Devices

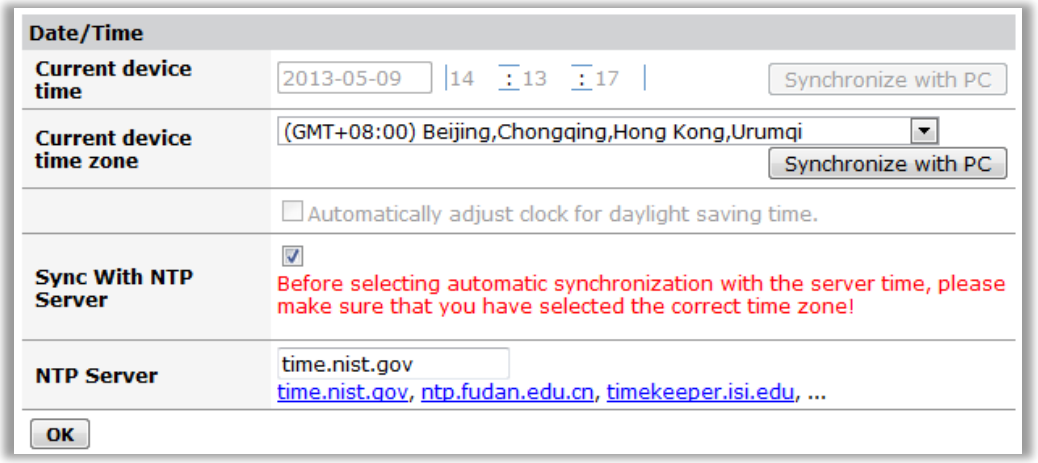



| | |
|---|---|
| Device's Name | Camera's Name. Only shows in IE (setting can only be changed or entered within the camera-search tool). |
| S/N | Camera's serial number |

| | |
|---|---|
| Software Ver. | Camera's software version |
| Release Date | Software's release date |
| Hardware Ver. | Camera's hardware version |
| Date/Time | Camera's date and time |
| Picture Path | The path of the snapshot when you click snapshot button, click it and change it to another path. It only works in IE. |
| Video Path | The path of the video file when you click record button, click it and change it to another path. It only works in IE. |
| TF card | The TF card's total and free volume. You can click Format button to format TF card. If your camera does not detect a TF card, it will show "-". |
| Network Storage | The URL information of network storage (NAS) |
| Status | The status of network storage (NAS) |

## Device Time

Camera's time setting




| | |
|---|---|
| Current device time | Camera's time and you can click Synchronize with PC to match it with your computer's time |
| Current device time zone | Time zone of the place that the camera is located |
| Automatically adjust clock for daylight saving time | Once your time is daylight saving time, click it to synchronize |
| Sync With NTP Server | Once you enable this, you can no longer synchronize camera's time with your PC's. Instead, the camera will synchronize the time from time server. |
| NTP Server | Time server of the network which is connected to the camera |

**Tips:**

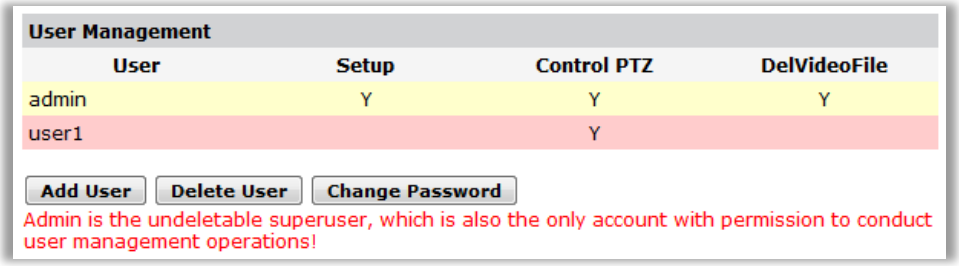
**1. What is a NTP server?**

NTP server is a server computer that reads the actual time from a reference clock and

distributes this information to its clients using network. Your camera will get the correct time through an NTP sever by offering the time zone of its location.

## User Management

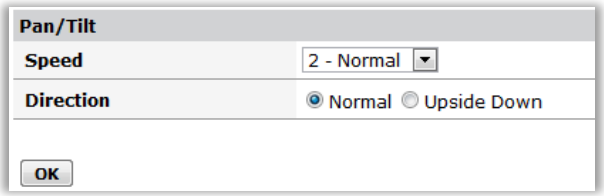
Adding and updating user accounts




Defined user contains 3 different permission levels.
Setup: Be able to change the camera's settings.
Control PTZ: Be able to control camera's PTZ.
DelVideoFile: Be able to delete camera's video file on your PC or TF card.

## Pan/Tilt

Camera's Pan/Tilt and preset setting (only available for cameras with Pan/Tilt function).



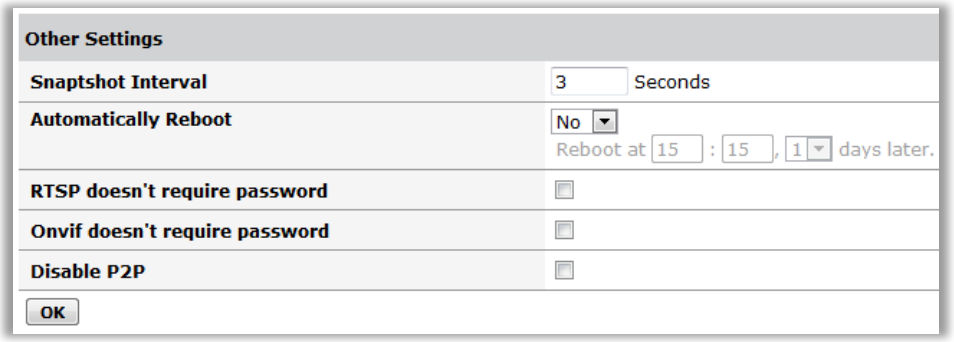

| | |
|---|---|
| PT Speed | Speed for Pan/Tilt which is also the speed for preset movements includes 5 speed options. |
| Direction | When you hang the camera under ceiling, Select **Upside Down** will help you get correct direction. |

## Reboot

Press reboot hyper-link to restart the camera.

## Other Settings

This is an advanced setting, click Open advanced settings to access these settings.




| | |
|---|---|
| Snapshot Interval | The interval of E-mail alert snapshots |
| Automatically Reboot | The camera reboots itself at the required time |
| RTSP doesn't require password | Allow access to RTSP stream without authentication (not recommended). |
| Onvif doesn't require password | Allows access to ONVIF protocol without authentication (not recommended) |
| Disable P2P | Disable P2P function of Quick Start Guide |

## Update

This is an advanced setting (only works using the Internet Explorer).
Update the device to the latest firmware version which can be found on our official website.
http://www.tenvis.com/download

**Notice:**

1. Please choose proper update package for your camera model.
2. Use an Ethernet cable NOT WI-FI to connect to your camera during the update process.
3. Make sure that the camera is not unplugged during the update process.
4. The whole process may take about 2-3 minutes. Please wait until camera reboots.
5. Please update only with the help of a professional in case of problems while updating.
6. TENVIS is not responsible for improper update attempts that lead to camera crash.
7. It only works in Internet Explorer.

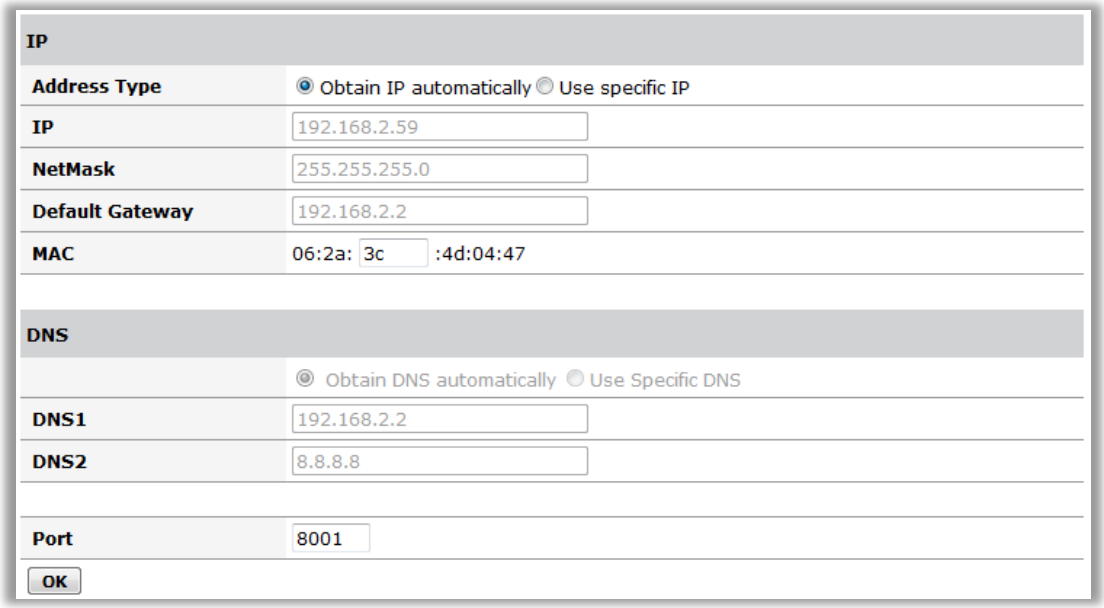
## Reset Settings

This is an advanced setting.
You can click reset button to reset the camera to default settings. Please do so only if you want to delete all the settings you have done in the camera.

# Network

## IP and Port

The Camera's Basic Network Settings

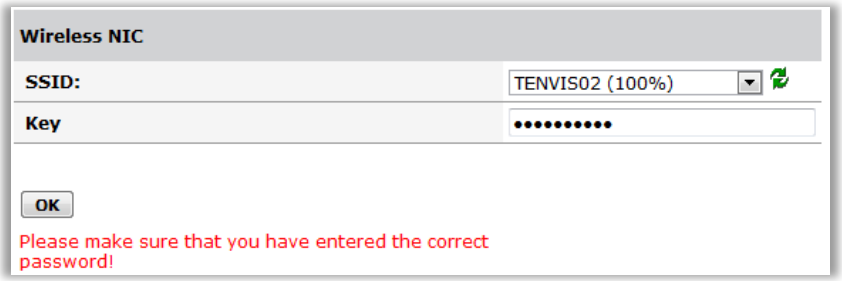



| | |
|---|---|
| Address Type | Enable or disable obtaining IP address from DHCP server automatically. If it is enabled, IP address and other items cannot be changed manually. |
| IP | Camera's local network IP address, which is used to view the camera in the same local area network.<br>Specify a unique IP address for your network camera. |
| NetMask | Specify the mask for the subnet the network camera is located on |
| Default Gateway | Specify the IP address of the default gateway (router) used for connecting devices attached to different networks and network segments |
| MAC | The camera's wired MAC address. |
| DNS1 /DNS2 | DNS (Domain Name Service) provides the translation of host names to IP addresses of your network |
| Port | Camera's communications port which is set to send video and audio data |

If you want to access the cam from Internet (outside your local network) or via mobile devices (iPhone, Smartphone, Touchpad, etc) and your router does not support fixed IP-addresses within the DHCP-range then you should get help by an experience IT-specialist to setup your router to be able to access the cam from Internet.
If your cam shall be used within Wi-Fi mode, you should setup the wireless options and restart the camera and come back to this menu to finalize the IP-address and Port-settings.
The reason is that the cam gets a new MAC-address during Wi-Fi-mode and the IP-address provided by the router (when using DHCP) changes correspondingly.

## Wireless Network

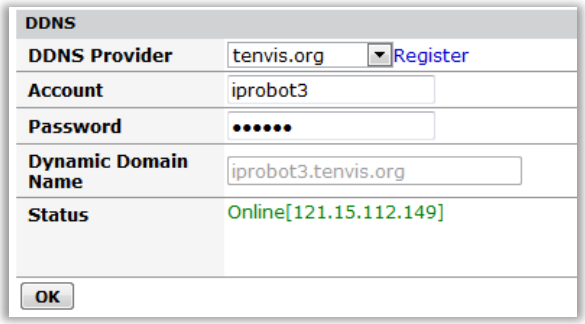
Configuring WI-FI connection




| | |
|---|---|
| SSID | Select your wireless SSID in the list. |
| Key | Enter your wireless password and click OK to set up wireless. |

After entering the wireless settings the cam should be rebooted and all further activities should be made in Wi-Fi mode.
The cam gets a new MAC-address during Wi-Fi mode and the IP-address provided by the router (when using DHCP) changes correspondingly.

This is an advanced setting. Configuring the camera's DDNS for remote view




| | |
|---|---|
| DDNS Provider | This camera supports multiple DDNS provider, select one of them and click Register to get an account. |
| Account | Enter the DDNS account. |
| Password | Enter the DDNS password. |
| Dynamic Domain Name | It is the remote URL of your camera. |
| Status | The DDNS' status |

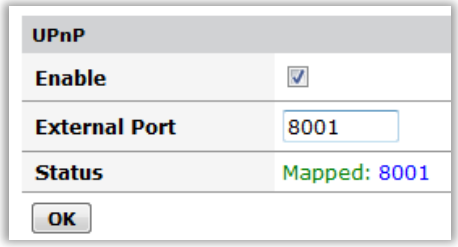
**Tips:**

**1. What is DDNS?**

DDNS (Dynamic DNS) is a service that maps Internet domain names to IP addresses. Thus we do not need to know the changing IP address in order to view the camera through the relevant DDNS server.

### UPnP

It is an advanced setting. Universal Plug and Play (UPnP) is architecture for peer-to-peer network connectivity and it will connect to the IP camera from Internet more seamlessly




| | |
|---|---|
| Enable | Enable UPnP |
| External Port | The external port of port forwarding or port mapping. We recommend you enter the internal Port, such as 8001. |
| Status | The status of UPnP |

**Notice:**

As UPNP is also easily affected by router or firewall, sometimes it may show failed status. If this happens, please forward the camera's port on your router manually. Whether UPNP succeeds or not, it will not affect the camera's remote access.

To be able to use UPnP your router must be enabled to allow UPnP-mode.

Be carefully, because UPnP not only opens a port for the camera. All other units within your network are also able to open free accessible ports to internet and function for incoming request from internet enabling to access your computers. So this is a potential security risk! Ask an experience IT specialist to assist you, if you are not familiar with NAT/Port forwarding on your router.

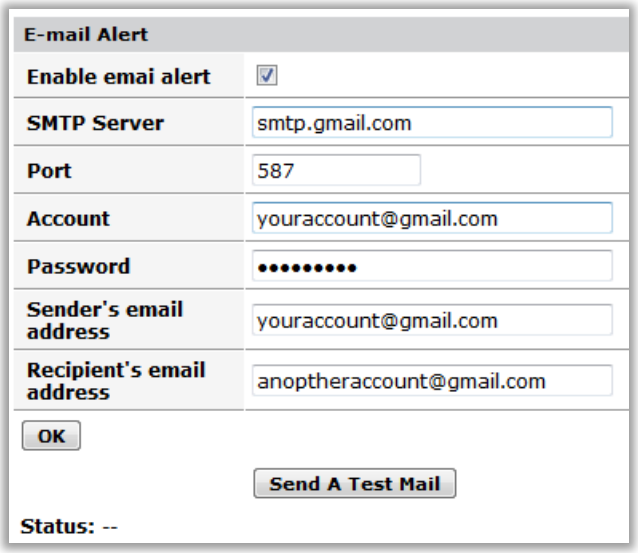
## Alarm

**Notice:**

When motion detection and/or sound detection are enabled especially during the night, false alarm might occur because of sudden change in light. Thus it is not considered as a product defect, and TENVIS is not responsible for the resulting loss.

### Email Alert

Once the motion detection alarm is enabled, camera will send snapshots to the specified email when it detects moving objects.




| | |
|---|---|
| Enable e-mail alert | Enable e-mail alert |
| SMTP Server | Sending emails provider ‘s SMTP server address |
| Port (default 25) | Service port of SMTP server. For Gmail, it is 587. For other email service providers, please search on the Internet. |
| Account | Email address for sending the alert email |
| Password | Sender email’s login password |
| Sender's email address | Email address for sending the alert email |
| Recipient's email address | E-mail address for receiving the alert email |

**E-mail Alert Configuration**

**Enable e-mail alert:** Enable it

**SMTP Server:** The SMTP (short for Simple Mail Transfer Protocol) works like a post assistant, handling the sending of emails from the camera to an email server. SMTP Server receives outgoing mail messages from users to the mail recipients they are intended for.

If your sender email provider is a public server, you can search the IP address of the email provider’s SMTP server or DDNS from Google.

If your sender email provider is a private one, you can consult with the email provider’s customer service.

**Port:** Service port of SMTP server which you can get with the above procedure

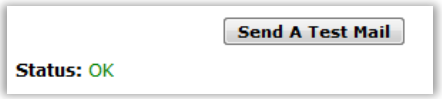
**Account** is your own email account that you use to login to the SMTP server. Sometimes this is also the email address but in most cases it is a separate account id.

**Password:** The password you use to login to the SMTP server which is also the sender email password.

**Sender's email address:** The sender’s email address must correspond to the account, port and SMTP-server settings above.

**Recipient's email address** is the email account that accepts the email alerts and we suggest that you make it a different email from the sender email.

Then click **OK** and **Send a test e-mail**. Once it says **OK** that means the camera has set up e-mail settings.



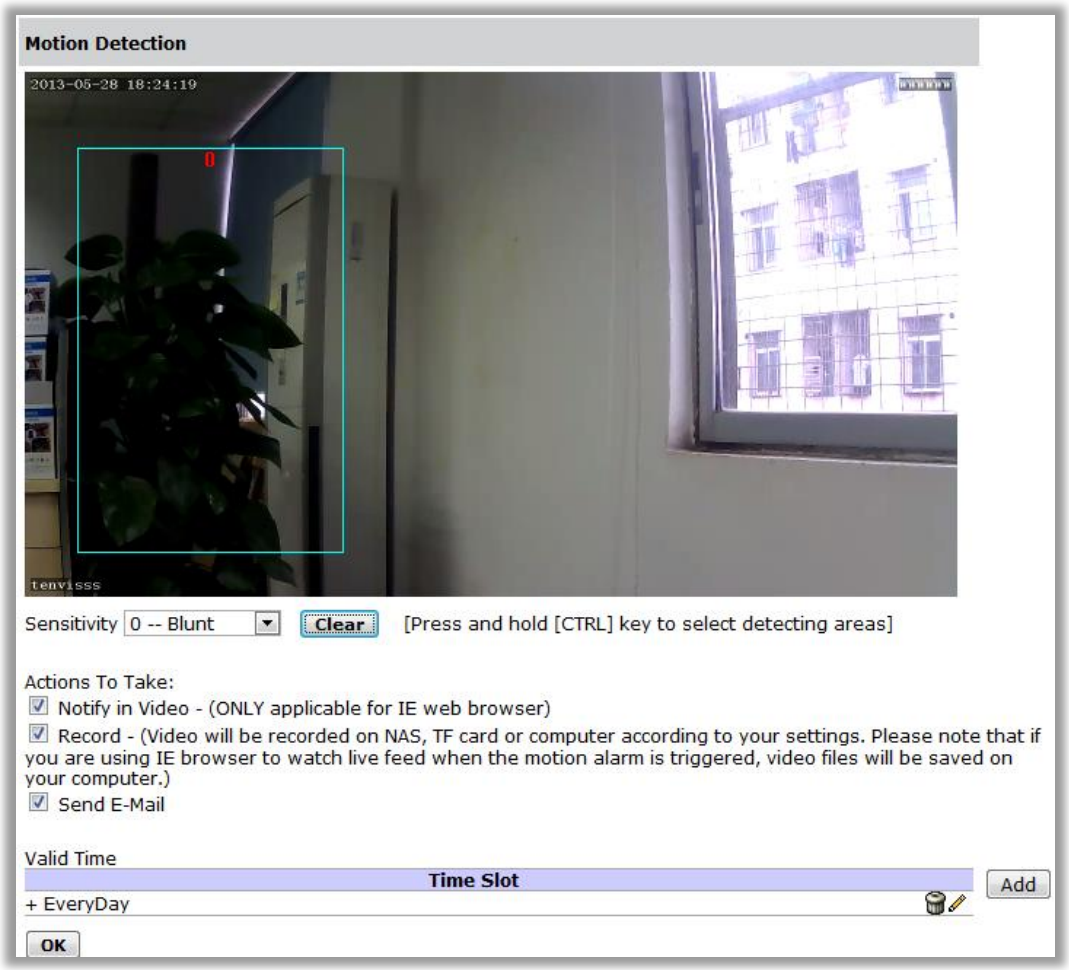

**Notice:**

1. Please check the IP settings of the camera if it failed the test
2. There might be some delay for motion detection alarm since it is related to the network condition and the service quality of the sender email's provider. Thus it is beyond the control of IP camera.
3. If you still cannot receive any email alert after receiving the test email, please check your spam box and add your sender email address in the trust list of the recipient email once your find it in spam.

**Tips:**

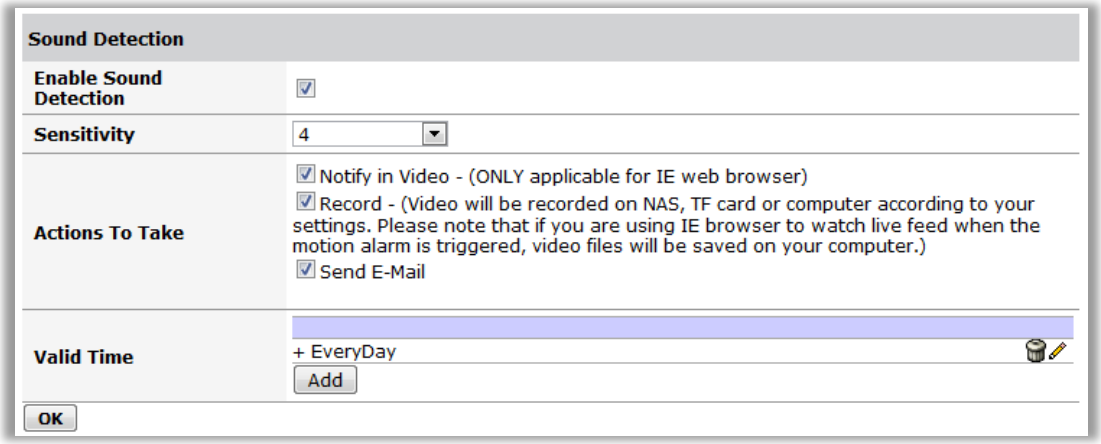
The email alert is sent via sender email's provider server which is an SMTP server. Once the camera signs in to the SMTP server, the email alert will be delivered to the recipient email after getting SMTP server's authentication. Therefore, the sender email, recipient email and the SMTP server are all required.

## Motion Detection


Motion Detection
2013-05-28 18:24:19
0
tenvisss
Sensitivity 0 -- Blunt
Clear
[Press and hold [CTRL] key to select detecting areas]
Actions To Take:
Notify in Video - (ONLY applicable for IE web browser)
Record - (Video will be recorded on NAS, TF card or computer according to your settings. Please note that if you are using IE browser to watch live feed when the motion alarm is triggered, video files will be saved on your computer.)
Send E-Mail
Valid Time
Time Slot
Add
+ EveryDay
OK

| | |
|---|---|
| Set up motion detection area | Hold [CTRL] key and select area on the video by mouse left key to select detecting areas |
| Sensitivity | The sensitivity of the motion detection alarm which contains 6 levels |
| Actions to Take | The actions to take when the camera detects movements |
| Notify in Video | There will be a symbol shows in video when the camera detects moving objects which is only available for IE browser |
| Record | Video will be recorded on NAS, TF card or computer according to your settings. Please note that if you are using IE browser to watch live feed when the motion alarm is triggered, video files will be also saved on your computer |
| Send alert E-Mail | Sending alert pictures to the specified email when the camera detects the movements |
| Valid Time | Up to 4 Time Slots can be set |

### Sound Detection

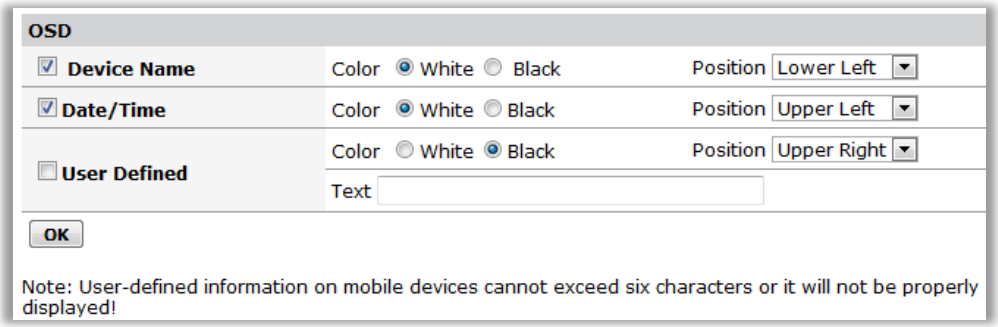

Sound Detection
Enable Sound Detection
Sensitivity
4
Actions To Take
Notify in Video - (ONLY applicable for IE web browser)
Record - (Video will be recorded on NAS, TF card or computer according to your settings. Please note that if you are using IE browser to watch live feed when the motion alarm is triggered, video files will be saved on your computer.)
Send E-Mail
Valid Time
+ EveryDay
Add
OK

| | |
|---|---|
| Enable sound detection | Enable sound detection |
| Sensitivity | The sensitivity of the motion detection alarm which contains 10 levels. |
| Actions to Take | The actions to take when the camera detects sounds |
| Notify in Video | There will be a symbol shows in video when the camera detects sounds which is only available for IE browser. |
| Record | Video will be recorded on NAS, TF card or computer according to your settings. Please note that if you are using IE browser to watch live feed, video files will be also saved on your computer |
| Send alert E-Mail | Sending alert pictures to the specified email when the camera detects sounds |
| Valid Time | 4 Time Slots can be set |

## Video

### On Screen Display

The information shows on the video



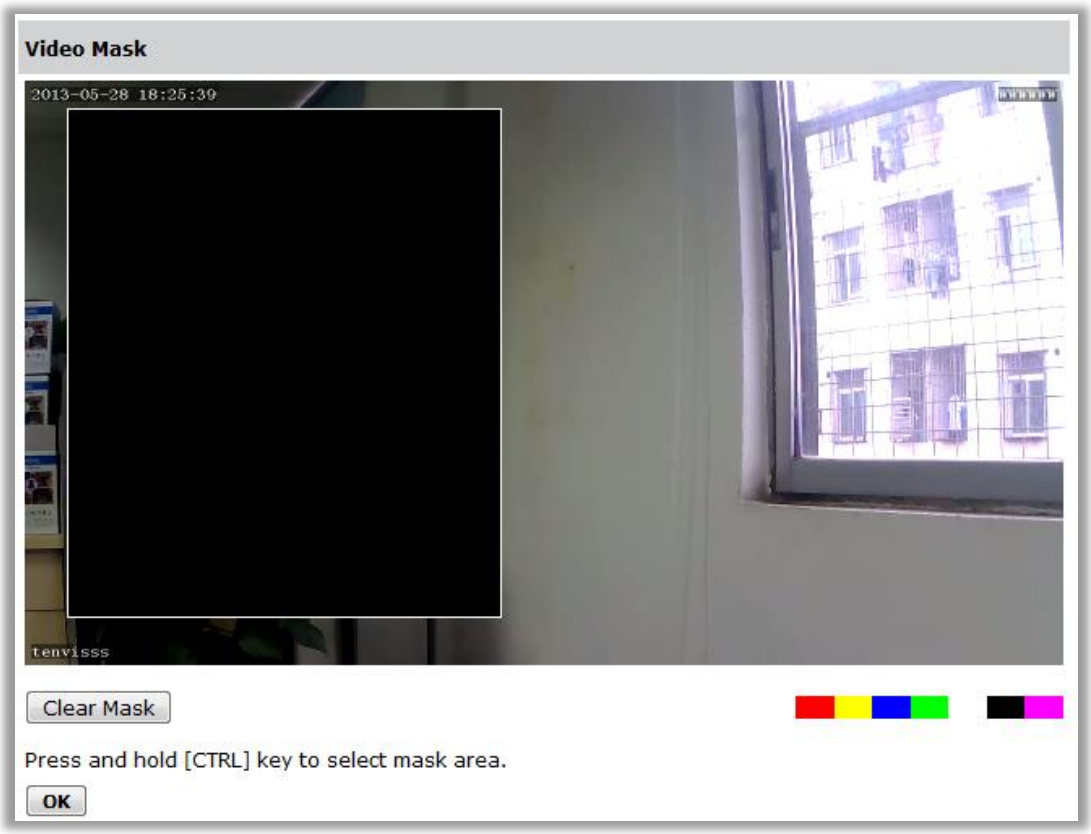

| | |
|---|---|
| Device Name | Show device name on the video |
| Date/Time | Show device's data and time on the video |
| User Defined | Show user defined text on the video |

**Notice:**

1. User Defined information on mobile devices cannot exceed six characters or it will not be properly displayed!

## Video Mask

You can define mask area on your video for privacy protection.




Hold [CTRL] key and select area on the video by mouse left key to select mask areas

## Video Quality

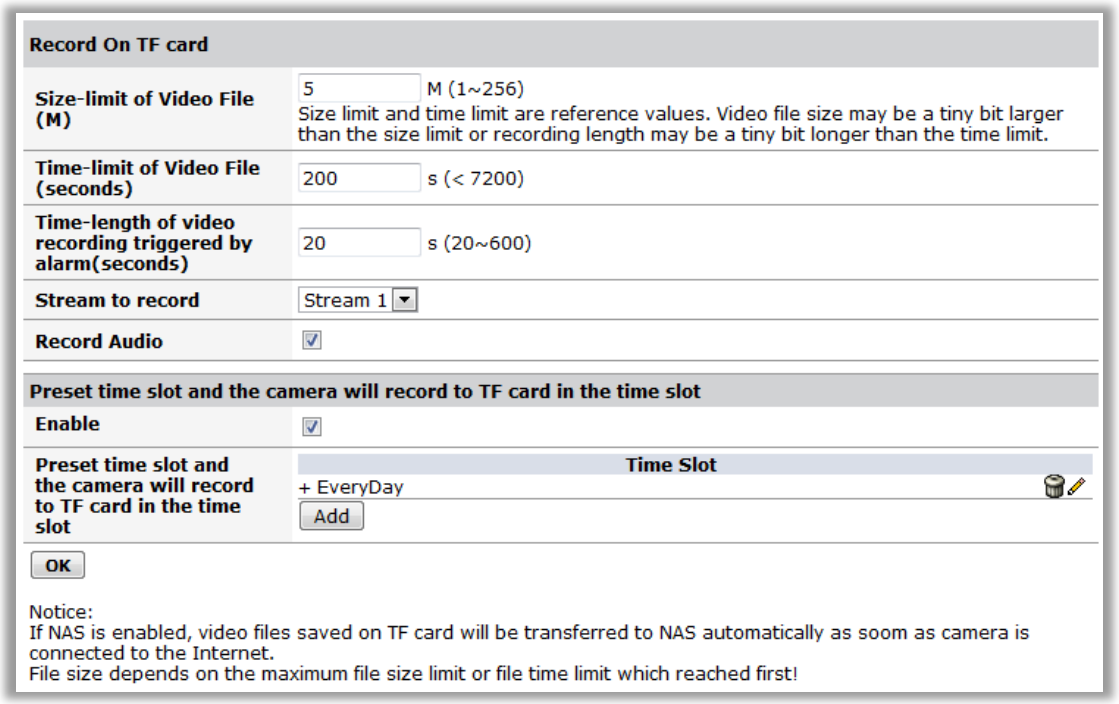
This is an advanced setting. You can adjust the

| | |
|---|---|
| Power Frequency | Adjust your power frequency to get flicker-free video |
| Stream | Main stream is the most |
| Resolution | Resolution of video |
| Output | Variable Bitrate and Constant Bitrate.<br>Variable Bitrate will use less bandwidth, but will affect the video quality on moving objects.<br>Constant Bitrate will use more bandwidth, but will provide better video quality on moving objects. |
| Frames per second | How many Frames per second but will provide better video quality on moving objects. |

| | |
|---|---|
| Bitrate | The bit rate of the video |
| Gap of I-Frame | Video buffer for motion recordings. The bigger the number is, the more key frame there will be. |

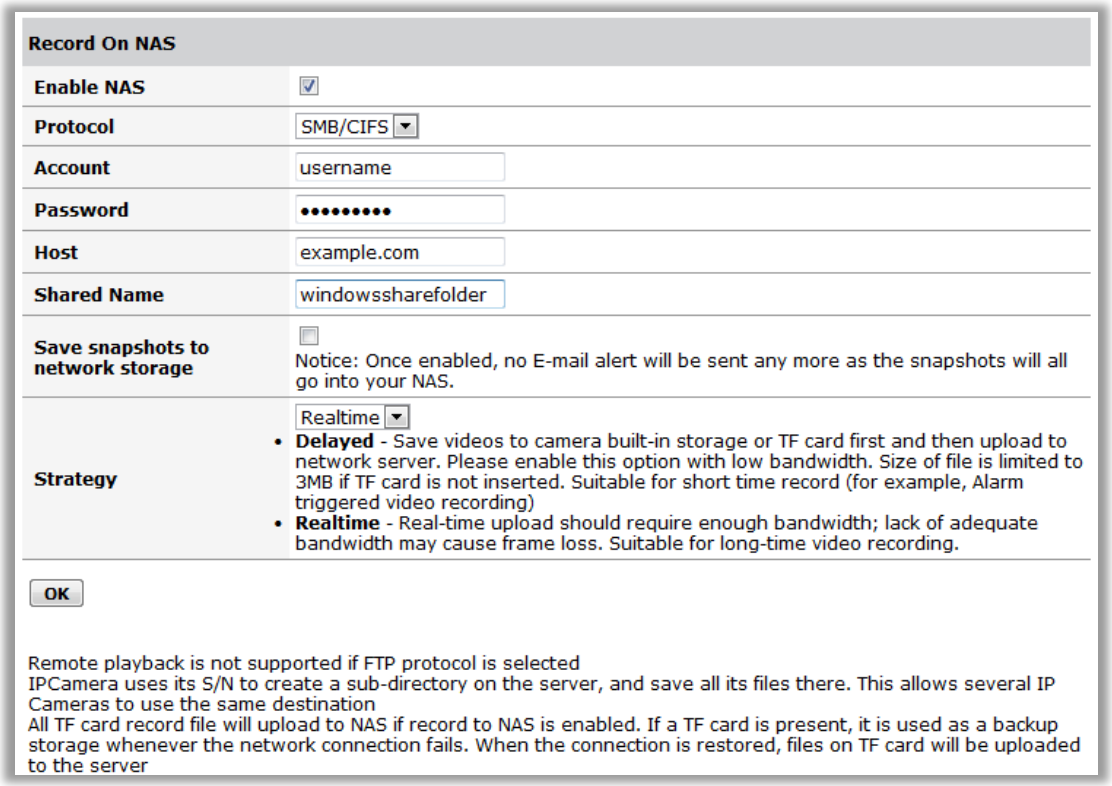
# Record On TF Card or NAS

## Record On TF Card


Record On TF card
Size-limit of Video File (M)
5
M (1~256)
Size limit and time limit are reference values. Video file size may be a tiny bit larger than the size limit or recording length may be a tiny bit longer than the time limit.
Time-limit of Video File (seconds)
200
s (< 7200)
Time-length of video recording triggered by alarm(seconds)
20
s (20~600)
Stream to record
Stream 1
Record Audio
Preset time slot and the camera will record to TF card in the time slot
Enable
Preset time slot and the camera will record to TF card in the time slot
Time Slot
+ EveryDay
Add
OK
Notice:
If NAS is enabled, video files saved on TF card will be transferred to NAS automatically as soom as camera is connected to the Internet.
File size depends on the maximum file size limit or file time limit which reached first!

| | |
|---|---|
| Size-limit of Video File(M) | The record file's size limit. Unit is MB. Size is only relevant for permanent recordings and if not delimited by "time-limit of video file". |
| Time-limit of Video File(seconds) | The record file's time limit. Unit is second.<br>Time limit is only relevant for permanent recordings and if not delimeted by "size-limit of video file". |
| Time-length of video recording triggered by alarm(seconds) | The record file's time limit triggered by alarm. Unit is second. |
| Stream to record | Choose which stream to record. Valid for permanent recording as well as recording on motion/sound-detection. |
| Record Audio | Whether record audio In video file. Valid for permanent recording as well as recording on motion/sound-detection. |
| Preset time periods for record | Constant recording. To record video at defined times regardless of the alarm. |
| Time Slot | Up to 4 Time Slots can be set |

## Record On NAS


Record On NAS
Enable NAS
Protocol
SMB/CIFS
Account
username
Password
Host
example.com
Shared Name
windowssharefolder
Save snapshots to network storage
Notice: Once enabled, no E-mail alert will be sent any more as the snapshots will all go into your NAS.
Strategy
Realtime
Delayed - Save videos to camera built-in storage or TF card first and then upload to network server. Please enable this option with low bandwidth. Size of file is limited to 3MB if TF card is not inserted. Suitable for short time record (for example, Alarm triggered video recording)
Realtime - Real-time upload should require enough bandwidth; lack of adequate bandwidth may cause frame loss. Suitable for long-time video recording.
OK
Remote playback is not supported if FTP protocol is selected
IPCamera uses its S/N to create a sub-directory on the server, and save all its files there. This allows several IP Cameras to use the same destination
All TF card record file will upload to NAS if record to NAS is enabled. If a TF card is present, it is used as a backup storage whenever the network connection fails. When the connection is restored, files on TF card will be uploaded to the server

| | |
|---|---|
| Enable Net Storages | Enable recording to NAS |
| Protocol | Select which kind of NAS the camera connects to.<br>**SMB/CIFS**<br>Server Message Block (SMB), also known as Common Internet File System (CIFS) operates as an application-layer network protocol mainly used for providing shared access to files. If your NAS support SMB/CIFS protocol please choose this. Windows share folder is based on this protocol.<br>**NFS**<br>NFS stands for Network File System, It is a client/server system that allows users to access files across a network and treats them as if they resided in a local file directory. If your NAS supports this protocol, please choose this.<br>**FTP**<br>FTP, short for File Transfer Protocol, is used to transfer files between computers on a network. If your NAS supports this protocol, please choose this. This is very common. But FTP protocol does not support remote playback. |
| Account | Your NAS' account provided by your NAS service/device provider. |
| Password | Your NAS' password provided by your NAS service/device provider. |
| Host | Your NAS' IP address or hostname. Notice that no "http://" is required. |

| | |
|---|---|
| Shared Name | Your NAS' Share Name provided by your NAS service/device provider. It is for **SMB/CIFS** Protocol only. |
| Server Directory | Your NAS' Server Directory provided by your NAS service/device provider. It is for **NFS** Protocol only. |
| Sub-Directory | It is for **FTP** Protocol only, the name of sub- directory if you want to record to sub- directory. If you want to record to root folder, leave it blank will be OK. |
| Save snapshots to network storage | If you not only want to record to NAS, but also want to save snapshots to your NAS, you can enable this.<br>**Notice:** Once enabled, no E-mail alert will be sent any more as the snapshots will all go into your NAS. |
| Strategy | **Delayed**<br>Save videos to camera built-in storage or TF card first and then upload to network server. Please enable this option with low bandwidth. Size of file is limited to 3MB if TF card is not inserted. Suitable for short time record (for example, Alarm triggered video recording)<br>**Realtime**<br>Real-time upload should require enough bandwidth; lack of adequate bandwidth may cause frame loss. Suitable for long-time video recording. |

**Notice:**

1. Remote playback is not supported if FTP is selected
2. The Camera uses its S/N to create a sub-directory on the server, and save all its files there. This allows several IP Cameras to use the same destination
3. All TF card record file will upload to NAS if record to NAS is enabled. If a TF card is present, it is used as a backup storage whenever the network connection fails. When the connection is restored, files on TF card will be uploaded to the server

# Remote View & Mobile Phone View

Please check Quick Start Guide for remote view and mobile phone view.

If you want to view the camera by web browser remotely, please set up DDNS and port forwarding.

For more information of port forwarding, please understand we cannot provide a common solution as there are too many router brands. Please Google your router's brand of port forwarding or visit our website for help. Thank you.

http://www.tenvis.com